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A.D. 1854 . . . . . N<sup>o</sup> 866.

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S P E C I F I C A T I O N

OF

ARTHUR HAWKER COX.

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COATING PILLS AND BOLUSES.

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LONDON:

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A.D. 1854 . . . . . N° 866.

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**Coating Pills and Boluses.**

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**LETTERS PATENT** to Arthur Hawker Cox, of Ship Street, Brighton, in the County of Sussex, Chemist and Druggist, for the Invention of “**IMPROVEMENTS IN COATING PILLS AND BOLUSSES.**”

Sealed the 13th October 1854, and dated the 13th April 1854.

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**PROVISIONAL SPECIFICATION** left by the said Arthur Hawker Cox at the Office of the Commissioners of Patents, with his Petition, on the 13th April 1854.

I, ARTHUR HAWKER COX, Chemist & Druggist, Ship Street, Brighton, in  
5 the County of Sussex, do hereby declare the nature of the said Invention for  
“**IMPROVEMENTS IN COATING PILLS AND BOLUSSES**” to be as follows:—

Canada balsam, gum thus, frankincense, gutta percha, caoutchouc, gun  
cotton, or other gum or resin or material, insoluble in water or saliva, but  
acted on by the stomach, is dissolved in ether, turpentine, alcohol, naphtha, or  
10 other volatile solvent.

The pills or bolusses to be coated are covered, rubbed, or washed over with  
this solution by immersion therein, or otherwise. The pills are then to be kept  
in motion till the solvent is sufficiently evaporated, to prevent the adhesion of  
the pills to each other.

15 Another method of applying this covering is to reduce to powder a friable  
resin, gum, or material, insoluble in water, as aforesaid, but acted on by the  
stomach, and to coat the pills or bolusses with the materials used, either by



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first covering them with the powder and then with a proper solvent, or by first covering them with the solvent and then with the powder. The solvent used is then evaporated from the surfaces of the pills or bolusses.

With either method the appearance of the pills or bolusses may be subsequently improved, by dusting them over with powdered French chalk or 5 other powder.

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**SPECIFICATION** in pursuance of the conditions of the Letters Patent, filed by the said Arthur Hawker Cox in the Great Seal Patent Office on the 13th October 1854.

**TO ALL TO WHOM THESE PRESENTS SHALL COME**, I, ARTHUR 10 HAWKER COX, of Ship Street, Brighton, in the County of Sussex, Chemist and Druggist, send greeting.

**WHEREAS** Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Thirteenth day of April, in the year of our Lord One thousand eight hundred and fifty-four, in the seventeenth year of Her 15 reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Arthur Hawker Cox, Her special license that I, the said Arthur Hawker Cox, my executors, administrators, and assigns, or such others as I, the said Arthur Hawker Cox, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter 20 during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "**IMPROVEMENTS IN COATING PILLS AND BOLUSSES**," upon the condition (amongst others) that I, the said Arthur Hawker Cox, by an instrument in writing under my hand and seal, 25 should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

**NOW KNOW YE**, that I, the said Arthur Hawker Cox, do hereby declare 30 the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement (that is to say):—

This Invention relates to a novel mode of coating pills and bolusses, and thereby rendering them tasteless to the palate when taken medicinally. 35



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It has heretofore been proposed to obtain this result by using a solution of gelatine as a coating, but this has failed, from the fact that on immersing the pills in the solution a portion of the component parts of the pill becomes dissolved, and a combination of the same with the gelatine takes place. In  
5 like manner a second immersion of the pill in the gelatine will (instead of imparting a coat of pure gelatine) again dissolve the surface of the pill, and unavoidably produce an adhesion between the pills, which virtually renders the application of a second coat impracticable. Now, the object of this Invention is to remedy the defect heretofore experienced in coating pills and boluses  
10 with a tasteless solution, and effectually to envelope the pill or bolus in a pellicle or covering, which shall be perfectly tasteless, and yet permit of the gastric juices of the animal body acting upon the pill. To this end I dissolve Venice turpentine, Canada balsam, gum thus, or frankincense, mastic, myrrh, or other gum or resin, insoluble in water or saliva (but capable of being  
15 readily acted upon by the juices of the stomach) in æther, alcohol, or other proper solvent, and the pills or boluses to be coated I immerse therein, or otherwise moisten their surfaces in any convenient way. The pills or boluses when thus coated are to be kept in motion until the solvent is sufficiently evaporated, to prevent the adhesion of the pills or boluses to each other. In  
20 applying a second coating of the dissolved gum (which in most cases I deem desirable) care must be taken that the first coating has already become dry and hard; in that case the second application will not disturb the first coat, and consequently the adhesion of the pills to each other, if kept in motion, will not take place.

25 Another method of applying this covering is to reduce to powder any one of the friable resins or gums which are insoluble in water, but capable of being readily acted upon by the juices of the stomach, as aforesaid, and to coat the pills or boluses with the powdered material, and then to immerse them in a proper solvent; or I first immerse them in the solvent, and while their surface  
30 is still wet roll them in the powdered resin. The solvent contained on the surface of the pill or bolus will in either case dissolve a portion of the resin, and form a pellicle of soluble resinous gum around it. The solvent is then to be evaporated, and the coating is completed. If, however, it is thought desirable, the pills or boluses may be subsequently made to take the ordinary appear-  
35 ance of such articles, by dusting over them powdered magnesia or other innocuous powder.

Having now set forth the nature of my Invention of "Improvements in Coating Pills and Boluses," and explained the mode of carrying the same into

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effect, I wish it to be understood that under the above in part recited Letters Patent I claim, the coating of pills and bolusses with a gum or resin varnish insoluble in water, in the manner and for the purpose above described.

In witness whereof, I, the said Arthur Hawker Cox, have hereunto set my hand and seal, this Twelfth day of October, in the year of our 5  
Lord One thousand eight hundred and fifty-four.

ARTHUR HAWKER COX. (L.S.)

Witness,

J. W. MOFFATT,

66, Chancery Lane.

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Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,  
Printers to the Queen's most Excellent Majesty. 1854.